AMENDMENT

IN THE CLAIMS:

Please amend claims 1, 6, 8, 9, 10, 11, 12, 13, 20, 21, 25, 26, 27, 29, 30, 32, 33, 37, 38 and 42 as follows:

B' 1. (Currently Twice Amended) A heat exchanger for a deep fryer system ~~having a gas burner to heat gases flowing through the heat exchanger, at least a portion of~~ , the heat exchanger being within a vat containing shortening, the heat exchanger comprising, in combination:

at least one heat transfer conduit having a heating fluid ~~hot gases~~ passing therethrough;

a baffle plate disposed within the at least one heat transfer conduit, defining a plane and having a first surface, an opposed second surface, and a longitudinal axis which divides the baffle plate into a first portion and a second portion;

a plurality of tabs, each tab comprised of a portion of the baffle plate which is cut from the baffle plate and bent away from one of the first and second surfaces, the tab leaving a hole in the baffle plate and having a longitudinal axis and extending outwardly away from one of the first and second surfaces of the baffle plate, an intersection of the tab and the baffle plate defining a crease, a plurality of the tabs being positioned in the first portion of the baffle plate and a plurality of the tabs being positioned in the second portion of the baffle plate, a plurality of the tabs extending outwardly from the first surface and a plurality of the tabs extending outwardly from the second surface;

a plurality of webs, each web separating a tab from another tab adjacent the tab in a direction substantially perpendicular to the longitudinal axis of the tab;

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a plurality of rows comprised of tabs and webs, each row having at least three tabs and at least two webs; and

the baffle plate positioned within the heat transfer conduit and the tabs having a length and an angle which position the tabs relative to the heat transfer conduit so the tabs do not contact the heat transfer conduit and do not prevent the ~~hot gases~~ heating fluid from flowing between the tabs and the portions of the heat transfer conduit most closely adjacent to each of the tabs.

B2 6. (Currently Twice Amended) A heat exchanger according to claim 1, wherein the crease of the plurality of tabs forms an acute angle with the longitudinal axis of the baffle plate ~~to provide additional mixing of the hot gases~~.

B3 8. (Currently Twice Amended) A heat exchanger according to claim 1, wherein the tabs are arranged in a plurality of rows, each row extending in a direction substantially perpendicular to the longitudinal axis of the baffle plate, each row having at least three tabs and the rows alternate between having the crease of each tab in a row form an acute angle with a portion of a longitudinal edge of the baffle plate which is downstream, with respect to the flow of ~~hot gases~~ heating fluid, of the row and having the crease of each tab in a row form an acute angle with a portion of the longitudinal edge of the baffle plate which is upstream, with respect to the flow of ~~hot gases~~ heating fluid, of the row.

9. (Currently Twice Amended) A heat exchanger according to claim 1, wherein at least one row having the crease of each tab in that row form an acute angle with a portion of a longitudinal edge of the baffle plate which is downstream, with respect to the flow of ~~hot gases~~ heating fluid, of that row is separated from at least one other row having the crease of each tab in that other row form an acute angle with a portion of the longitudinal edge of the baffle plate which is upstream, with respect to the flow of ~~hot gases~~ heating fluid, of that row by a separate row having the crease of each tab in that separate row form a right angle with the longitudinal edge of the baffle plate.

10. (Currently Twice Amended) A heat exchanger according to claim 1, wherein the crease of at least one tab is positioned directly downstream, with respect to the flow of ~~hot gases~~ heating fluid, of the web between two tabs which are adjacent and upstream of the at least one tab.

11. (Currently Twice Amended) A heat exchanger according to claim 1, wherein the crease of each tab is upstream, with respect to the flow of ~~hot gases~~ heating fluid, of a main body of the each tab.

12. (Currently Twice Amended) A heat exchanger according to claim 1, wherein the crease of each tab is downstream, with respect to the flow of ~~hot gases~~ heating fluid, of a main body of the each tab.

13. (Currently Twice Amended) A heat exchanger according to claim 1, wherein the crease of at least one tab is downstream, with respect to the flow of ~~hot gases~~ heating fluid, of a main body of the

at least one tab and the crease of at least one other tab is upstream, with respect to the flow of ~~hot gases~~ heating fluid, of the main body of the at least one other tab.

20. (Currently Twice Amended) A heat exchanger according to claim 1, wherein a portion of the baffle plate has a greater number of tabs than an equally sized portion of the baffle plate which is upstream, with respect to the flow of ~~hot gases~~ heating fluid, of the portion of the baffle plate.

21. (Currently Twice Amended) A heat exchanger according to claim 1, wherein the number of tabs per unit length increases along the baffle plate in a downstream direction with respect to the flow of ~~hot gases~~ heating fluid.

25. (Currently Twice Amended) A baffle for a heat exchanger in a deep fryer, the heat exchanger having at least one heat transfer conduit with ~~hot gases~~ heating fluid passing therethrough, comprising, in combination:

a baffle plate positioned within the at least one heat transfer conduit defining a plane and having a first surface, an opposed second surface, and a longitudinal axis which divides the baffle plate into a first portion and a second portion;

a plurality of rows of tabs, each tab comprising a portion of the baffle plate bent outwardly from one of the first and second surfaces, having a longitudinal axis, and defining a crease along an intersection of the tab and the baffle plate, at least one tab in each row being positioned in the first portion of the baffle plate, at least one tab in each row being positioned in the second portion of the

baffle plate, each row having the crease of all of its tabs form an acute angle with one of a portion of a longitudinal edge of the baffle plate which is upstream, with respect to the flow of ~~hot gases~~ heating fluid, of a main body of its respective tab and a portion of the longitudinal edge which is downstream, with respect to the flow of ~~hot gases~~ heating fluid, of the main body of its respective tab and the rows adjacent to the each row having the crease of all of their tabs form an acute angle with the other of a portion of the longitudinal edge which is upstream, with respect to the flow of ~~hot gases~~ heating fluid, of the main body of its respective tab and a portion of the longitudinal edge which is downstream, with respect to the flow of ~~hot gases~~ heating fluid, of the main body of its respective tab; and

a plurality of webs, each web separating a tab from another tab adjacent the tab in a direction substantially perpendicular to the longitudinal axis of the tab, the crease of at least one tab being directly downstream, with respect to the flow of ~~hot gases~~ heating fluid, of the web between two other tabs which are adjacent and upstream, with respect to the flow of ~~hot gases~~ heating fluid, of the at least one tab;

wherein the number of tabs per unit length increases along the baffle plate in a downstream direction with respect to the flow of ~~hot gases~~ heating fluid.

26. (Currently Amended) A heat exchanger for a deep fryer system having a gas burner to heat ~~gas~~ fluid flowing through the heat exchanger, ~~at least a portion of~~ the heat exchanger being within a vat containing shortening, the heat exchanger comprising, in combination:

at least one heat transfer conduit having ~~hot gases~~ heating fluid passing therethrough;

a baffle plate disposed within the at least one heat transfer conduit defining a plane and having a first surface, an opposed second surface, and a longitudinal axis which divides the baffle plate into a first portion and a second portion;

a plurality of tabs, each tab having a longitudinal axis and extending outwardly away from one of the first and second surfaces of the baffle plate, an intersection of the tab and the baffle plate defining a crease, the crease being created by bending the tab from the baffle plate, at least one of the tabs being positioned in the first portion of the baffle plate and at least one of the tabs being positioned in the second portion of the baffle plate;

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the baffle plate being positioned within the heat transfer conduit and the tabs having a length and an angle which position the tabs relative to the heat transfer conduit so the tabs do not contact the heat transfer conduit and do not prevent the ~~hot gases~~ heating fluid from flowing between the tabs and those portions of the heat transfer conduit most closely adjacent to each of the tabs;

the tabs being comprised of a portion of the baffle plate which is cut from the baffle plate and bent away from one of the first and second surfaces, each of the tabs leaving a hole in the baffle plate;

at least a portion of a side of each hole comprised of the crease of the tab which was cut and bent from the baffle plate to leave the hole, the tab and the hole which share a crease defining a tab/hole pair;

a plurality of webs, each web separating a first tab/hole pair from a second tab/hole pair which is adjacent to the first tab/hole pair in a direction substantially perpendicular to the longitudinal axis of the tab;

a plurality of the tabs being bent outwardly away from the first surface and a plurality of the tabs being bent outwardly away from the second surface;

B5 a plurality of rows of tab/hole pairs, each row extending in a direction substantially perpendicular to the longitudinal axis of the baffle plate and having at least three tab/hole pairs, each of the tab/hole pairs in each row being separated from each adjacent tab/hole pair in the row by a web;

there being at least two webs in each row of tab/hole pairs, the webs in each row of the tab/hole pairs comprising a row of webs extending in a direction substantially perpendicular to the longitudinal axis of the baffle plate;

a plurality of rows of webs;

a plurality of rows of tab/hole pairs, which rows each have at least one tab/hole pair positioned in the first portion of the baffle plate and at least one tab/hole pair positioned in the second position of the baffle plate;

a plurality of rows of tab/hole pairs, each row of table/hole pairs having at least one tab extending outwardly away from the first surface of the baffle plate and at least one tab extending outwardly away from the second surface of the baffle plates;

the baffle plate being positioned within the heat transfer conduit and shaped so that the tabs are capable of deflecting the ~~hot gases~~ heating fluid so that the ~~hot gases are~~ heating fluid is capable of flowing (1) through the holes, (2) between the tabs, (3) adjacent to the webs and (4) between the tabs and the heat transfer conduit so the baffle plate, tabs, and holes are capable of collectively causing increased turbulence of the ~~hot gases~~ heating fluid passing through the heat transfer conduit, the increased turbulence improving heat transfer from the ~~hot gases~~ heating fluid within the heat transfer conduit to the shortening within the vat of the deep fryer system as compared to a similar heat exchanger for a deep fryer system which does not utilize a baffle plate.

27. (Currently Amended) A heat exchanger according to Claim 26 wherein a plurality of tabs are positioned directly upstream, with respect to the flow of ~~hot gases~~ heating fluid, of the web between two tabs which are adjacent to each other and downstream of the plurality of tabs; and

a plurality of tabs are positioned directly downstream, with respect to the flow of ~~hot gases~~ heating fluid, of the web between two tabs which are adjacent and downstream of the plurality of tabs.

28. (Previously Added) A heat exchanger according to Claim 26 wherein a plurality of the webs are positioned in a straight line, one behind another, in the direction of the longitudinal axis of the baffle plate.

29. (Currently Amended) A heat exchanger for a deep fryer system having a gas burner to heat ~~gas~~ fluid flowing through the heat exchanger, ~~at least a portion of~~ the heat exchanger being contained within a vat containing shortening, the heat exchanger comprising, in combination:

B 6 at least one heat transfer conduit having ~~hot gases~~ heating fluid passing therethrough;

a baffle plate disposed within the at least one heat transfer conduit defining a plane and having a first surface, an opposed second surface, and a longitudinal axis which divides the baffle plate into a first portion and a second portion;

a plurality of tabs, each tab having a longitudinal axis and extending outwardly away from one of the first and second surfaces of the baffle plate, an intersection of the tab and the baffle plate defining a crease, the crease being created by bending the tab from the baffle plate, at least one of the tabs being positioned in the first portion of the baffle plate and at least one of the tabs being positioned in the second portion of the baffle plate;

the baffle plate being positioned within the heat transfer conduit and the tabs having a length and an angle which position the tabs relative to the heat transfer conduit so the tabs do not contact the heat transfer conduit and do not prevent the ~~hot gases~~ heating fluid from flowing between the tabs and the portions of the heat transfer conduit most closely adjacent to each of the tabs;

the tabs being comprised of a portion of the baffle plate which is cut from the baffle plate and bent away from one of the first and second surfaces, each of the tabs leaving a hole in the baffle plate;

at least a portion of a side of each hole comprised of the crease of the tab which was cut and bent from the baffle plate to leave the hole, the tab and the hole which share a crease defining a tab/hole pair;

a plurality of webs, each web separating a first tab/hole pair from a second tab/hole pair which is adjacent to the first tab/hole pair in a direction substantially perpendicular to the longitudinal axis of the tab;

a plurality of the tabs being bent outwardly away from the first surface and a plurality of the tabs being bent outwardly away from the second surface;

at least six rows of tab/hole pairs, each row extending in a direction substantially perpendicular to the longitudinal axis of the baffle plate and having at least four tab/hole pairs and at

least three webs, each of the tab/hole pairs in each row being separated from each adjacent tab/hole pair in the row by a web;

a plurality of rows of tab/hole pairs, which rows each have a tab/hole pair positioned in the first portion of the baffle plate and a tab/hole pair positioned in the second position of the baffle plate;

a plurality of rows of tab/hole pairs, which rows have a tab extending outwardly away from the first surface of the baffle plate and a tab extending outwardly away from the second surface of the baffle plates;

β6 the tab/hole pairs being arranged on the baffle plate so that an equal number of tabs are on either side of the center line of the first surface of the baffle plate and the tab/ hole pairs are arranged on the first surface of the baffle plate symmetrically about the center line of the baffle plate and so an equal number of tabs are on either side of the center line of the second surface of the baffle plate and the tab/hole pairs are arranged on the second surface of the baffle plate symmetrically about the center line of the baffle plate;

the baffle plate is positioned and shaped so that the tabs are capable of deflecting the ~~hot gases~~ heating fluid so that the ~~hot gases are~~ heating fluid is capable of flowing (1) through the holes, (2) between the tabs, (3) adjacent the webs and (4) between the tabs and the heat transfer conduit so the baffle plate, tabs, holes and webs are capable of collectively causing increased turbulence of the ~~hot gases~~ heating fluid passing through the heat transfer conduit, the increased turbulence improving

heat transfer from the ~~hot gases~~ heating fluid within the heat transfer conduit to the shortening within the vat of the deep fryer system as compared to a similar heat exchanger for a deep fryer system which does not utilize a baffle plate.

30. (Currently Amended) The heat exchanger of Claim 29 wherein at least a portion of the webs are positioned directly upstream, with respect to the flow of ~~hot gases~~ heating fluid, of a tab located in an immediately downstream row of tabs and at least a portion of the webs are positioned directly downstream of a tab located in an immediately upstream row of tabs.

31. (Previously Added) A heat exchanger according to Claim 29 wherein a plurality of the webs are in a straight line, one behind another, in the direction of the longitudinal axis of the baffle plate.

B6 32. A heat exchanger for a deep fryer system comprising, in combination:

at least one heat transfer conduit for ~~hot gases~~ heating fluid to pass therethrough;

a baffle plate disposed within the at least one heat transfer conduit, defining a plane and having a first surface, an opposed second surface, and a longitudinal axis which divides the baffle plate into a first portion and a second portion;

a plurality of tabs, each tab having a longitudinal axis and extending outwardly away from one of the first and second surfaces of the baffle plate, an intersection of the tab and the baffle plate

defining a crease, at least one of the tabs being positioned in the first portion of the baffle plate and at least one of the tabs being positioned in the second portion of the baffle plate;

substantially all of the tabs being separated from adjacent tabs by a web, each web separating a tab from another tab adjacent the tab in a direction substantially perpendicular to the longitudinal axis of the tab;

each of the tabs comprises a portion of the baffle plate which is bent outwardly away from one of the first and second surfaces;

each tab being positioned adjacent to a corresponding hole in the baffle plate;

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the ~~hot gases~~ heating fluid being capable of flowing through the hole created in the baffle plate by bending said tab out of the baffle plate;

a plurality of rows of tabs, each of which rows has a tab positioned in the first portion of the baffle plate and a tab positioned in the second position of the baffle plate;

a plurality of rows of tabs, each of which rows has a tab extending outwardly away from the first surface of the baffle plate and a tab extending outwardly away from the second surface of the baffle plates;

a majority of the tab/hole pairs created by bending the tab from the baffle plate leaving a hole in the baffle plate are positioned in a plurality of rows of tab/hole pairs tabs, each row of tab/hole pairs extending in a direction substantially perpendicular to the longitudinal axis of the baffle plate;

each row of tab/hole pairs has a tab positioned in the first portion of the baffle plate and a tab positioned in the second position of the baffle plate;

each row of tab/hole pairs has a tab extending outwardly away from the first surface of the baffle plate and a tab extending outwardly away from the second surface of the baffle plate;

a plurality of the rows of tabs have at least three tabs, a first tab positioned above the plane of the baffle plate, a second adjacent tab separated from the first tab by a web and positioned below the plane of the baffle plate, and a third tab, separated by a web from the second tab and positioned above the plane of the baffle plate; and

the tabs are located, and shaped so the tabs are capable of deflecting the ~~hot gases~~ heating fluid and the ~~hot gases are~~ heating fluid is flowable (1) through the holes, (2) between the tabs and (3) between the tabs and the heat transfer conduit so the baffle plate, tabs, and holes are capable of collectively causing increased turbulence of the ~~hot gases~~ heating fluid passing through the heat transfer conduit to improve heat transfer from the ~~hot gases~~ heating fluid through the heat transfer conduit to the shortening within the vat of the deep fryer system as compared to a heat exchanger for a deep fryer system which does not utilize a baffle plate.

33. (Currently Amended) A heat exchanger according to Claim 32, wherein each tab extends outwardly at an acute angle with respect to the surface of the baffle plate from its crease and each tab being capable of deflecting the ~~hot gases~~ heating fluid through its corresponding hole in the baffle plate and outwardly away from the baffle plate.

34. (Previously Amended) A heat exchanger according to Claim 32, wherein an approximately equal number of tabs are on either side of the longitudinal axis of the baffle plate and the tabs are arranged on the baffle plate generally symmetrically about the longitudinal axis of the baffle plate.

35. (Previously Amended) A heat exchanger according to Claim 32 wherein the heat exchanger has a plurality of heat transfer conduits located within the vat containing shortening.

36. (Previously Amended) A heat exchanger according to Claim 32, additionally comprising at least six rows of tabs on the baffle plate, including at least three tabs per row.

37. (Currently Amended) A baffle for a heat exchanger in a deep fryer, the heat exchanger having at least one transfer conduit for ~~hot gases~~ heating fluid to pass therethrough, comprising, in combination:

a baffle plate positioned within the at least one heat transfer conduit defining a plane and having a first surface, and an opposed second surface and a longitudinal axis which divides the baffle plate into a first portion and a second portion;

a plurality of rows of tabs, at least three tabs in most of the rows of tabs, each tab comprising a portion of the baffle plate that is bent outwardly from one of the first and second surfaces and leaving a hole in the baffle plate, having a longitudinal axis, and defining a crease along an intersection of the tab and the baffle plate, at least one tab in each row being positioned in the first portion of the baffle plate, at least one tab in each row being positioned in the second portion of the baffle plate;

at least a portion of a side of each hole comprises the crease of the tab the hole is adjacent to, the tab extending outwardly from the baffle plate over at least part of the adjacent hole, the tab and the hole which share a crease defining a tab/hole pair;

a plurality of adjacent tabs being separated from each other by a web;

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a plurality of rows of webs, at least two webs in most of the rows of webs, each web separating a tab from another adjacent tab in a direction substantially perpendicular to the longitudinal axis of the baffle plate; the tabs and webs are positioned upon the baffle plate and shaped so the tabs are capable of deflecting the ~~hot gases~~ heating fluid and the ~~hot gases are~~ heating fluid is flowable between the tabs and adjacent to the webs;

and wherein the tabs are positioned and shaped so the tabs are capable of deflecting the ~~hot gases~~ heating fluid and the ~~hot gases are~~ heating fluid is flowable (1) through the holes, (2) between the tabs and (3) between the tabs and the heat transfer conduit so the baffle plate, tabs, and holes are capable of collectively causing increased turbulence of the ~~hot gases~~ heating fluid passing through

the heat transfer conduit to improve heat transfer from the ~~hot gases~~ heating fluid through the heat transfer conduit to the shortening within the vat of the deep fryer system as compared to a heat exchanger for a deep fryer system which does not have a baffle plate.

38. (Currently Amended) The heat exchanger of Claim 37, wherein the crease of a plurality of tabs in each row of tabs is directly downstream, with respect to the flow of the ~~hot gases~~ heating fluid, of the creases of the tabs in the rows of tabs directly upstream and directly upstream of the creases of the tabs in the row of tabs directly downstream.

39. (Previously Amended) A heat exchanger according to Claim 37 wherein each row of tab/hole pairs has a tab extending outwardly away from the first surface of the baffle plate and a tab extending outwardly away from the second surface of the baffle plate.

40. (Previously Amended) A heat exchanger according to Claim 37 wherein an approximately equal number of tabs are on either side of the longitudinal axis of the baffle plate and the tabs are arranged on the baffle plate generally symmetrically about the longitudinal axis of the baffle plate.

41. (Previously Amended) A heat exchanger according to Claim 37, additionally comprising at least six rows of tabs on the baffle plate including at least three tabs per row.

42. (Currently Amended) A deep fryer system having a heat exchanger and a burner to heat air flowing through the heat exchanger, ~~at least a portion of~~ the heat exchanger being within the deep

fryer system's vat containing shortening, the heat exchanger portion of the deep fat fryer system comprising:

at least one heat transfer conduit having ~~hot gases~~ heating fluid passing therethrough;

a baffle plate disposed within the at least one heat transfer conduit defining a plane and having a first surface, an opposed second surface, and a longitudinal axis which divides the baffle plate into a first portion and a second portion;

a plurality of tabs, each tab having a longitudinal axis and extending outwardly away from one of the first and second surfaces of the baffle plate, an intersection of the tab and the baffle plate defining a crease, the crease being created by bending the tab from the baffle plate, at least one of the tabs being positioned in the first portion of the baffle plate and at least one of the tabs being positioned in the second portion of the baffle plate;

the tabs being comprised of a portion of the baffle plate which is cut from the baffle plate and bent away from one of the first and second surfaces, each of the tabs leaving a hole in the baffle plate;

at least a portion of a side of each hole is comprised of the crease of the tab which was cut and bent from the baffle plate to leave the hole, the tab and the hole which share a crease defining a tab/hole pair;

a plurality of webs, each web separating a first tab/hole pair from a second tab/hole pair which is adjacent to the first tab/hole pair in a direction substantially perpendicular to the longitudinal axis of the tab;

a plurality of the tabs being bent outwardly away from the first surface and a plurality of the tabs being bent outwardly away from the second surface;

a plurality of rows of tab/hole pairs, each row extending in a direction substantially perpendicular to the longitudinal axis of the baffle plate and having at least three tab/hole pairs, each of the tab/hole pairs in each row being separated from each adjacent tab/hole pair in the row by a web;

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there being at least two webs in each row of tab/hole pairs, the webs in each row of the tab/hole pairs comprising a row of webs extending in a direction substantially perpendicular to the longitudinal axis of the baffle plate;

a plurality of rows of webs, at least two webs in most of the rows of webs, each web separating a tab from another adjacent tab in a direction substantially perpendicular to the longitudinal axis of the baffle plate; the tabs and webs are positioned and shaped so the tabs are capable of deflecting the ~~hot gases~~ heating fluid and the ~~hot gases are~~ heating fluid is flowable between the tabs and adjacent to the webs;

a plurality of rows of tab/hole pairs, which rows each have at least one tab/hole pair positioned in the first portion of the baffle plate and at least one tab/hole pair positioned in the second position of the baffle plate;

a plurality of rows of tab/hole pairs; which rows have at least one tab extending outwardly away from the first surface of the baffle plate and at least one tab extending outwardly away from the second surface of the baffle plate;

a plurality of webs arranged in a straight line, one behind the other, in the direction of the longitudinal axis of the baffle plate;

B6 wherein the crease of a plurality of tabs in each row of tabs being directly downstream with respect to the flow of the ~~hot gases~~ heating fluid of the creases of the tabs in the rows of tabs directly upstream and being directly upstream of the creases of the tabs in the row of tabs directly downstream; and

the baffle plate with its tab/hole pairs and webs is positioned within the conduit and shaped so that the tabs are capable of deflecting the ~~hot gases~~ heating fluid and the ~~hot gases are~~ heating fluid is flowable (1) through the holes, (2) between the tabs, (3) adjacent to the webs and (4) between the tabs and the heat transfer conduit so the baffle plate, tabs, and holes are capable of collectively causing increased turbulence in the ~~hot gases~~ heating fluid passing through the heat transfer conduit to improve heat transfer from the ~~hot gases~~ heating fluid through the heat transfer conduit to the

shortening within the vat of the deep fryer system as compared to a similar heat exchanger for a deep fryer system which does not utilize a baffle plate.

43. (Previously Amended) A heat tube baffle for a deep fat fryer wherein the fryer includes an oil tank for cooking food with at least one heat tube extending therethrough in heat exchange relationship with said tank wherein cooking oil in said tank is heated by said tube and wherein a burner generates products of combustion which flow through said tube from an entrance to an exit, said baffle comprising:

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an elongated, rectangular metal plate having opposed faces, the plate disposed within the tube and extending within the tube, the plate having a plurality of mutually spaced tabs struck thereof, in mutually spaced rows and extending at an acute angle to the plate along the length thereof, each of the tabs in each row extending outwardly toward an adjacent tube wall and directed upstream of the flow, each struck tab leaving a corresponding hole in the plate whereby products of combustion in the flow are directed through the hole by the tab.

CONCURRENT LITIGATION

As per 37 CFR § 1.178(b), the Examiner is hereby informed that the litigation involving the patent for which reissue has been requested was settled as of November 28, 2001. For the Examiner's convenience, a copy of the Stipulated Order of Dismissal is provided as Exhibit "1".

PROSECUTION HISTORY

In his Office action dated September 19, 2002, the Examiner:

(1) allowed claims 1-42;

(2) rejected claim 43 under 35 USC 102(b) as being anticipated by the Pitco Frialtor device provided in Exhibit "D" of the original reissue application;

(3) approved of the correction to Figure 3 filed on February 8, 2002; and

(4) required the surrender of the original patent certificate.

In a telephone conference between the Examiner and Richard R. Ruble, it was pointed out that the Pitco Frialator device , the art upon which the rejection under 102(b) was based, was not prior art under 102(b) but instead was the infringing device under which a suit for patent infringement was filed against Pitco Frialator by Applicant. This was made of record in the response to the Office action filed by Applicant on December 27, 2002, along with the original Patent certificate for U.S. Patent No. 5,901,641. In the above mentioned telephone conference, the Examiner tentatively agreed to allow claim 43 and pass the application to issue. However, the Examiner subsequently revised his previous position with regard to the present application.

Specifically, in his second Office action, the Examiner:

(1) rejected claims 1-43 as being based upon a defective reissue declaration; specifically, the Examiner argues that the reissue oath has not been signed, but initialed only, by the inventor;

(2) rejected claims 1-43 under 35 USC § 251 as being based upon new matter; specifically, the Examiner cited the terms "hot gases" and "at least a portion of" as being new matter;

(3) rejected claims 1-43 under 35 USC § 112, first paragraph, arguing that the claims contained subject matter which was not described in the specification in such a way as to reasonably convince one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention; the Examiner cited the terms "hot gases" and "at least a portion" as being new matter; and

(4) objected to the specification under 35 USC § 132 arguing that pages 2-6 of the amendment filed on July 30, 2002, does not have support in the specification as originally filed.

ARGUMENTS

Reissue Oath/Declaration

The Examiner rejected the reissue declaration as being defective under 37 CFR 1.175(a)(1). In response, applicant provides a declaration signed by Albert Charles McNamara, attached as Exhibit "2", upon which he declares that the signature provided upon the reissue oath/declaration is his full and complete signature

In light of this evidence, applicant respectfully requests that the Examiner's rejection of the reissue oath/declaration be withdrawn.

35 USC § 251

As stated above, the Examiner rejected claims 1-43 as being based upon new matter. Without conceding the propriety of the Examiner's position on this issue, Applicant has amended the claims to delete the term "at least a portion" and has replaced the term "hot gases" with "heating fluid." The term "heating fluid" was utilized in the original claims of the application. Thus, Applicant respectfully submits that reverting to this prior terminology is allowable and that the amendments to the claims do not broaden the scope of the claims relative to the original application. See MPEP §2163.06

The Examiner argues that "the specification only refers to "air," therefore Applicant is only limited to "air." In response, the Examiner's attention is respectfully drawn to Column 1, lines 34-39, which reads:

"The principles of the invention may be used to advantage to provide a baffle for the heat exchanger of a fryer system which can improve the heat transfer from heated gas flowing through heat transfer conduits of the heat exchanger to shortening contained within the vat." (emphasis added)

Thus, Applicant respectfully asserts that the specification does not only refer to "air," but includes other gaseous fluids or liquids as well; see also Column 3, lines 13-17.

In addition to the above arguments, the Examiner also rejected claim 43. However, claim 43 does not contain the "hot gases" or the "at least a portion of" terminology argued by the Examiner to support his new matter rejection under 35 USC § 251. The Examiner's attention is respectfully drawn to Column 1, lines 14-23, the Summary of the Invention portion of the specification, and the Figures for, at a minimum, the requisite support for the language of claim 43. In light of the above, Applicant respectfully requests that the rejection of claims 1-43 under 35 USC § 251 be withdrawn.

35 USC § 112, First Paragraph

The Examiner rejected claims 1-43 under 35 USC § 112, first paragraph, arguing that the use of the terms "hot gases" and "at least a portion of" was not described in the specification. As stated above, the claims have been amended to traverse this rejection through replacement of "hot gases" with "heating fluid" and the deletion of the "at least a portion of" terminology. The above discussion regarding the rejection of claim 43 is respectfully repeated with regard to the Examiner's

rejection under 35 USC § 112. Specifically, claim 43 does not contain the language complained of by the Examiner and is, at a minimum, supported by Column 1, Lines 14-23, the Summary of the Invention portion of the Specification, and the Figures.

In light of the amendments to the claims and the above discussion, Applicant respectfully requests that the rejection of claims 1-43 under 35 USC § 112 be withdrawn.

35 USC § 132

To clarify the record, Applicant filed the document entitled "Preliminary Amendment for Reissue Application" in concert with the reissue application on February 8, 2002. Evidence of same may be found on Applicant's Reissue Application Transmittal form which indicates that said preliminary amendment was filed on February 8, 2002. In short, Applicant is not aware of any amendment filed on July 30, 2002, as indicated by the Examiner, and assumes the Examiner is referring to the preliminary amendment filed on February 8, 2002.

The Examiner objected to the text insertion on pages 2-6 of the preliminary amendment arguing that the amendment does not have support in the specification as originally filed. In response, Applicant respectfully directs the Examiner's attention to MPEP § 2163.06 which states that "information contained in any one of the specifications, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter." See also Cooper Cameron Corp. v. Kvaerner Oilfield Products, Inc. 62 USPQ 2d 1846 (CA FC 2002) (...patent drawings alone constitute adequate written description if they describe what is claimed...)

In short, Applicant respectfully submits that the entire text insertion on pages 2-6 of the amendment was taken from material previously disclosed in the drawings along with the original application.

To assist the Examiner in his review of the drawings for the requisite support, Applicant has assigned a letter to each portion of the amendment. The assignment of each letter is shown generally in Exhibit "3" for the Examiner's convenience. These letters are utilized on a plurality of copies of the original Figures to indicate where, within the Figures, support for each portion of the amendment to the specification may be found. Please see attached evidence labeled as Exhibits "A" through "Z".

For example, the first sentence of the amendment to the Specification rejected by the Examiner reads, "As shown in Figure 3, in one embodiment, crease 44 of each tab 42 is downstream with respect to the flow of the heating fluid designated as "B" in Figure 3. As shown in Figure 3, heating fluid B is deflected by tabs 42."

For the Examiner's convenience, this sentence is reproduced on the attached Exhibit "A", and is accompanied by a copy of original Figure 3. Upon the copy of Figure 3, portions of the Figure that provide support for each element of sentence "A" are pointed out by arrows. Also, examples of portions of the original specification that further support sentence "A" are listed on the bottom of the Figure upon attached Exhibit "A" for the Examiner's convenience. This procedure is repeated for the remaining portions of the specification, see attached Exhibits "A" through "Z".

In this manner, Applicant hopes to demonstrate to the Examiner that the complained of amendment to the specification is clearly and fully supported by the original application. In light of the above demonstration, applicant respectfully requests that the objection to the specification under 35 USC § 132 be withdrawn.